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- AGGARWAL, K. M. Collision Strengths for Optically Allowed Transitions in Ne v and Mg VII (Abstract of Paper in 1985 June Suppl.). *K. M. Aggarwal.* **292**, 766, 56-C3 (1985)
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- APARICIO, ANTONIO. *UBVR* Observations of BL Lacertae Objects (Abstract of Paper in 1985 June Suppl.). *Mariano Moles, José Manuel García-Pelayo, Josefa Masegosa, and Antonio Aparicio.* **292**, 766, 56-C3 (1985)
- APPARAO, KRISHNA M. V. X-Ray Emission from Be Star Binaries. *Krishna M. V. Apparao.* **292**, 257, 48-G4 (1985)
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- BALDWIN, J. A. Redshift Evolution of the Lyman-Line-Absorbing Clouds in Quasar Spectra. *B. Atwood, J. A. Baldwin, and R. F. Carswell.* **292**, 58, 46-E11 (1985)
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- BENTLEY, A. F. Radio and Infrared Observations of OH/IR Stars at the Tangential Point and near the Galactic Center. *B. Baud, Anneila I. Sargent, M. W. Werner, and A. F. Bentley.* **292**, 628, 54-E8 (1985)
- BERGE, G. L. High-Resolution CO Observations of NGC 7027. *C. R. Masson, K. W. Cheng, G. L. Berge, M. J. Claussen, G. M. Heiligman, R. B. Leighton, K. Y. Lo, A. T. Moffet, T. G. Phillips, A. I. Sargent, S. L. Scott, and D. P. Woody.* **292**, 464, 52-G3 (1985)
- BERTOLA, F. Warped Dust Lanes in Elliptical Galaxies: Transient or Stationary Phenomena? *F. Bertola, G. Galletta, and W. W. Zeilinger.* **292**, L51, 57-B3 (1985)
- BIEGING, J. H. The Binary System MWC 349. *Martin Cohen, J. H. Bieging, J. W. Dreher, and W. J. Welch.* **292**, 249, 48-F10 (1985)
- BIRETTA, J. A. Observations of 3C 273 with High North-South Resolution. *J. A. Biretta, M. H. Cohen, H. E. Hardebeck, P. Kaufmann, Z. Abraham, A. A. Peretto, E. Scalise, Jr., R. E. Schaal, and P. M. Silva.* **292**, L5, 50-A7 (1985)
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- BOHM, K. H. The Unexpected Ultraviolet Variability of Herbig-Haro Object 1. *E. W. Bruge, K. H. Böhm, J. M. Shull, and E. Böhm-Vitense.* **292**, L75, 57-C11 (1985)
- BOHM, KARL-HEINZ. Predicted Long-Slit, High-Resolution Emission-Line Profiles from Interstellar Bow Shocks (Abstract of Paper in 1985 June Suppl.). *Alex C. Raga and Karl-Heinz Böhm.* **292**, 765, 56-C2 (1985)
- BOHM-VITENSE, E. The Unexpected Ultraviolet Variability of Herbig-Haro Object 1. *E. W. Bruge, K. H. Böhm, J. M. Shull, and E. Böhm-Vitense.* **292**, L75, 57-C11 (1985)
- BOHM-VITENSE, ERIKA. Ultraviolet Studies of Stars in the Populous Cluster NGC 2100 in the Large Magellanic Cloud. *Erika Böhm-Vitense, Paul Hodge, and Charles Proffitt.* **292**, 130, 47-D8 (1985)
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- BOWER, C. D. Hydrogen-deficient Atmospheres for Cool Carbon Stars. *H. R. Johnson, D. R. Alexander, C. D. Bower, D. A. Lemke, D. G. Luttermoser, J. P. Petrakis, M. D. Reinhart, K. A. Welch, and J. H. Goebel.* **292**, 228, 48-E2 (1985)
- BOWYER, STUART. The Association of Optical Emission with the Inner Centaurus A Jet. *Jean Brodie and Stuart Bowyer.* **292**, 447, 52-E9 (1985)
- BREYSACHER, JACQUES. Wolf-Rayet Stars in the Magellanic Clouds. III. The W04 + O4 V Binary Sk 188 in the SMC. *Anthony F. J. Moffat, Jacques Breysacher, and Wilhelm Seggewiss.* **292**, 511, 53-C10 (1985)
- BRODIE, JEAN. The Association of Optical Emission with the Inner Centaurus A Jet. *Jean Brodie and Stuart Bowyer.* **292**, 447, 52-E9 (1985)
- BROWN, B. L. A Possible Galactic Positron Annihilation Medium: Neutral Hydrogen. *B. L. Brown.* **292**, L67, 57-C3 (1985)
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- CARLBERG, R. G. Dynamical Evolution in Galactic Disks. *R. G. Carlberg and J. A. Sellwood.* **292**, 79, 46-G4 (1985)
- CARSWELL, R. F. Redshift Evolution of the Lyman-Line-Absorbing Clouds in Quasar Spectra. *B. Atwood, J. A. Baldwin, and R. F. Carswell.* **292**, 58, 46-E11 (1985)
- CHAFFEE, FREDERIC H., JR. High-Resolution Spectroscopy of Selected Absorption Lines toward Quasi-stellar Objects. II. The Metal-to-Hydrogen Ratio in a "Metal-free" Cloud toward S5 0014 + 81. *Frederic H. Chaffee, Jr., Craig B. Foltz, Hermann-Josef Röser, Ray J. Weyman, and David W. Latham.* **292**, 362, 51-F2 (1985)
- CHAPMAN, G. A. Solar Luminosity Fluctuations during the Disk Transit of an Active Region. *J. K. Lawrence, G. A. Chapman, A. D. Herzog, and J. C. Shelton.* **292**, 297, 49-C4 (1985)

- CHENG, K. W. High-Resolution CO Observations of NGC 7027. *C. R. Masson, K. W. Cheng, G. L. Berge, M. J. Claussen, G. M. Heiligman, R. B. Leighton, K. Y. Lo, A. T. Moffet, T. G. Phillips, A. I. Sargent, S. L. Scott, and D. P. Woody.* **292**, 464, 52-G3 (1985)
- CHIN, CHAO-WEN. Stellar Evolution at High Mass with Convective Core Overshooting. *Richard B. Stothers and Chao-wen Chin.* **292**, 222, 48-D10 (1985)
- CHITRE, S. M. The Gravitational Lens as an Astronomical Diagnostic. *William C. Saslaw, D. Narasimha, and S. M. Chitre.* **292**, 348, 51-E2 (1985)
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- CLAUSSEN, M. J. High-Resolution CO Observations of NGC 7027. *C. R. Masson, K. W. Cheng, G. L. Berge, M. J. Claussen, G. M. Heiligman, R. B. Leighton, K. Y. Lo, A. T. Moffet, T. G. Phillips, A. I. Sargent, S. L. Scott, and D. P. Woody.* **292**, 464, 52-G3 (1985)
- CLEVELAND, B. T. Chlorine and Gallium Solar Neutrino Experiments. *J. N. Bahcall, B. T. Cleveland, R. Davis, Jr., and J. K. Rowley.* **292**, L79, 57-D1 (1985)
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- DICKEY, J. M. H I Mapping of Galaxies in the Hercules Cluster. *E. E. Salpeter and J. M. Dickey.* **292**, 426, 52-D4 (1985)
- DOSCHEK, G. A. High-Resolution X-Ray Spectra of Solar Flares. VII. A Long-Duration X-Ray Flare Associated with a Coronal Mass Ejection. *R. W. Kreplin, G. A. Doschek, U. Feldman, N. R. Sheeley, Jr., and J. F. Seely.* **292**, 309, 49-D3 (1985)
- DRAINE, B. T. Temperature Fluctuations and Infrared Emission from Interstellar Grains. *B. T. Draine and Nels Anderson.* **292**, 494, 53-B6 (1985)
- DREHER, J. W. The Binary System MWC 349. *Martin Cohen, J. H. Bieging, J. W. Dreher, and W. J. Welch.* **292**, 249, 48-F10 (1985)
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- EFSTATHIOU, GEORGE. The Evolution of Large-Scale Structure in a Universe Dominated by Cold Dark Matter. *Marc Davis, George Efsthathiou, Carlos S. Frenk, and Simon D. M. White.* **292**, 371, 51-F12 (1985)
- ELVIS, MARTIN. The Diversity of Soft X-Ray Spectra in Quasars. *Martin Elvis, Belinda J. Wilkes, and Harvey Tananbaum.* **292**, 357, 51-E11 (1985)
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- EVENSON, K. M. The Microwave and Far-Infrared Spectra of the SiH Radical. *J. M. Brown, R. F. Curl, and K. M. Evenson.* **292**, 188, 48-B4 (1985)
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- FEIBELMAN, W. A. Dynamical Activity in V1016 Cygni. *W. A. Feibelman and R. P. Fahey.* **292**, L15, 50-B2 (1985)
- FELDMAN, P. D. The Absolute Flux of Six Hot Stars in the Ultraviolet (912-1600 Å). *T. N. Woods, P. D. Feldman, and G. H. Bruner.* **292**, 676, 55-B9 (1985)
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- FITZPATRICK, EDWARD L. Ultraviolet Interstellar Absorption toward Stars in the Small Magellanic Cloud. IV. Highly Ionized Gas Associated with the Small Magellanic Cloud. *Edward L. Fitzpatrick and Blair D. Savage.* **292**, 122, 47-C12 (1985)
- FOLTZ, C. B. The Variability of the Spectrum of Arakelian 120. II. Evidence for a Small Broad Line Emitting Region. *B. M. Peterson, K. A. Meyers, E. R. Capriotti, C. B. Foltz, B. J. Wilkes, and H. R. Miller.* **292**, 164, 47-G8 (1985)
- FOLTZ, CRAIG B. High-Resolution Spectroscopy of Selected Absorption Lines toward Quasi-stellar Objects. II. The Metal-to-Hydrogen Ratio in a "Metal-free" Cloud toward S5 0014 + 81. *Frederic H. Chaffee, Jr., Craig B. Foltz, Hermann-Josef Röser, Ray J. Weyman, and David W. Latham.* **292**, 362, 51-F2 (1985)
- FORD, V. L. Supernova Remnants in the Magellanic Clouds. III. (Abstract of Paper in 1985 June Suppl.). *D. S. Mathewson, V. L. Ford, I. R. Tuohy, B. Y. Mills, A. J. Turtle, and D. J. Helfand.* **292**, 764, 56-C1 (1985)
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- GEHALLE, T. R. Spectroscopy of the 3 Micron Emission Features. *T. R. Geballe, J. H. Lacy, S. E. Persson, P. J. McGregor, and B. T. Soifer.* **292**, 500, 53-B12 (1985)
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- GLACUM, W. Active Star Formation in NGC 2264. *P. R. Schwartz, Harley A. Thronson, Jr., Sten F. Odenwald, W. Glaccum, R. F. Loewenstein, and Grace Wolf.* **292**, 231, 48-E5 (1985)
- GOEBEL, J. H. Hydrogen-deficient Atmospheres for Cool Carbon Stars.

- H. R. Johnson, D. R. Alexander, C. D. Bower, D. A. Lemke, D. G. Luttermoser, J. P. Petrakis, M. D. Reinhart, K. A. Welch, and J. H. Goebel. **292**, 228, 48-E2 (1985)
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- HARNDEN, F. R., JR. Einstein X-Ray Survey of the Pleiades: The Dependence of X-Ray Emission on Stellar Age. G. Micela, S. Sciortino, S. Serio, G. S. Vaiana, J. Bookbinder, L. Golub, F. R. Harnden, Jr., and R. Rosner. **292**, 172, 48-A2 (1985)
- HARRIS, MICHAEL J. Oxygen Isotopic Abundances in Evolved Stars. I. Six Barium Stars. Michael J. Harris, David L. Lambert, and Verne V. Smith. **292**, 620, 54-D14 (1985)
- HASCHICK, AUBREY D. Formation of OB Clusters: CO, NH₃, and H₂O Observations of the Distant H II Region Complex in S128. Aubrey D. Haschick and Paul T. P. Ho. **292**, 200, 48-C2 (1985)
- HAYNES, MARTHA P. Gas Deficiency in Cluster Galaxies: A Comparison of Nine Clusters. Riccardo Giovanelli and Martha P. Haynes. **292**, 404, 52-B8 (1985)
- HEASLEY, J. N. The Determination of the Helium Abundance in Main-Sequence B Stars. Sidney C. Wolff and J. N. Heasley. **292**, 589, 54-B10 (1985)
- HEILIGMAN, G. M. High-Resolution CO Observations of NGC 7027. C. R. Masson, K. W. Cheng, G. L. Berge, M. J. Claussen, G. M. Heiligman, R. B. Leighton, K. Y. Lo, A. T. Moffet, T. G. Phillips, A. I. Sargent, S. L. Scott, and D. P. Woody. **292**, 464, 52-G3 (1985)
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- HENRIKSEN, MARK J. The Physical Implications of an Isothermal Model for the Hot Intracluster Medium. Mark J. Henriksen and Richard F. Mushotzky. **292**, 441, 52-E3 (1985)
- HERBST, ERIC. The Rate of the Radiative Association Reaction between CH₃⁺ and NH₃ and Its Implications for Interstellar Chemistry. Eric Herbst. **292**, 484, 53-A10 (1985)
- HERZOG, A. D. Solar Luminosity Fluctuations during the Disk Transit of an Active Region. J. K. Lawrence, G. A. Chapman, A. D. Herzog, and J. C. Shelton. **292**, 297, 49-C4 (1985)
- HILL, JESSE K. Images in the Rocket Ultraviolet: The Initial Helium Abundance and Distance Modulus of the Globular Cluster M5 from Photometry of Horizontal-Branch Stars. Ralph C. Bohlin, Robert H. Cornett, Jesse K. Hill, Andrew M. Smith, and Theodore P. Stecher. **292**, 687, 55-C6 (1985)
- HINTZEN, PAUL. Optical and Radio Observations for the BL Lacertae Objects 1219 + 28, 0851 + 202, and 1400 + 162. Donna Weistrop, David B. Shaffer, Paul Hintzen, and W. Romanishin. **292**, 614, 54-D8 (1985)
- HO, PAUL T. P. Formation of OB Clusters: CO, NH₃, and H₂O Observations of the Distant H II Region Complex in S128. Aubrey D. Haschick and Paul T. P. Ho. **292**, 200, 48-C2 (1985)
- HODGE, PAUL. Ultraviolet Studies of Stars in the Populous Cluster NGC 2100 in the Large Magellanic Cloud. Erika Böhm-Vitense, Paul Hodge, and Charles Proffitt. **292**, 130, 47-D8 (1985)
- HOLBERG, J. B. Far-Ultraviolet Background Observations at High Galactic Latitude. I. The Coma Cluster. J. B. Holberg and H. B. Barber. **292**, 16, 46-B7 (1985)
- HOLLENBACH, DAVID J. Far-Infrared Line Intensities of H₂O and CO from Warm Molecular Clouds. Takamasa Takahashi, David J. Hollenbach, and Joseph Silk. **292**, 192, 48-B8 (1985)
- HOLMAN, GORDON D. The Microwave Structure of Hot Coronal Loops. Gordon D. Holman and Mukul R. Kundu. **292**, 291, 49-B12 (1985)
- HUTCHINGS, J. B. 35 Day Spectroscopic Effects in HZ Herculis. J. B. Hutchings, E. M. Gibson, D. Crampton, and W. A. Fisher. **292**, 670, 55-B3 (1985)
- HUTCHINGS, JOHN. Ultraviolet, Optical, and Infrared Observations of the Intermediate Polar TV Columbae: Erratum. Mario Mateo, Paula Szkody, and John Hutchings. **292**, 763, 56-B12 (1985) (Orig. paper in **288**, 292, 4-B4)
- INAGAKI, SHOGO. Equipartition in Multicomponent Gravitational Systems. Shogo Inagaki and William C. Saslaw. **292**, 339, 51-D7 (1985)
- IPSER, JAMES R. An Eulerian Variational Principle and a Criterion for the Occurrence of Nonaxisymmetric Neutral Modes along Rotating Axisymmetric Sequences. James R. Ipser and Robert A. Managan. **292**, 517, 53-D2 (1985)
- JOHNSON, H. R. Hydrogen-deficient Atmospheres for Cool Carbon Stars. H. R. Johnson, D. R. Alexander, C. D. Bower, D. A. Lemke, D. G. Luttermoser, J. P. Petrakis, M. D. Reinhart, K. A. Welch, and J. H. Goebel. **292**, 228, 48-E2 (1985)
- JURA, M. Condensation onto Grains in the Outflows from Mass-losing Red Giants. M. Jura and M. Morris. **292**, 487, 53-A13 (1985)
- KALLMAN, T. Consequences of Hot Gas in the Broad-Line Region of Active Galactic Nuclei. T. Kallman and R. Mushotsky. **292**, 49, 46-E2 (1985)
- KAUFMANN, P. Observations of 3C 273 with High North-South Resolution. J. A. Biretta, M. H. Cohen, H. E. Hardebeck, P. Kaufmann, Z. Abraham, A. A. Peretto, E. Scalise, Jr., R. E. Schaaf, and P. M. Silva. **292**, L5, 50-A7 (1985)
- KEIL, S. L. A Search for Long-lived Velocity Fields at the Solar Poles. B. R. Durney, L. E. Cram, D. B. Guenther, S. L. Keil, and D. M. Lytle. **292**, 752, 56-A13 (1985)
- KEPLER, S. O. A Measurement of Secular Evolution in the Pre-White Dwarf Star PG 1159-035. D. E. Winget, S. O. Kepler, E. L. Robinson, R. E. Nather, and Darragh O'Donoghue. **292**, 606, 54-C13 (1985)
- KHOSA, P. N. A Possible Explanation of Spatial Structure of X-Rays ≥ 100 keV in Solar Flares Observed by the PVO/ISEE 3 Spacecraft. P. K. Koul, K. L. Moza, P. N. Khosa, and R. R. Rausaria. **292**, 725, 55-F10 (1985)
- KINZER, R. L. Detection of Galactic ²⁶Al Gamma Radiation by the SMM Spectrometer. G. H. Share, R. L. Kinzer, J. D. Kurfess, D. J. Forrest, E. L. Chupp, and E. Rieger. **292**, L61, 57-B12 (1985)
- KIRSHNER, ROBERT P. An [Fe X] $\lambda 6374$ Image of Part of the Cygnus Loop. Richard G. Teske and Robert P. Kirshner. **292**, 22, 46-B13 (1985)
- Optical Emission-Line Properties of Evolved Galactic Supernova Remnants. Robert A. Fesen, William P. Blair, and Robert P. Kirshner. **292**, 29, 46-C8 (1985)
- KNAPP, G. R. Mass Loss from Evolved Stars. III. Mass Loss Rates for Fifty Stars from CO J = 1-0 Observations. G. R. Knapp and Mark Morris. **292**, 640, 54-F7 (1985)
- KODAIRA, K. Digital Surface Photometry of Galaxies toward a Quantitative Classification. IV. Principal Component Analysis of Surface-photometric Parameters. M. Watanabe, K. Kodaira, and S. Okamura. **292**, 72, 46-F11 (1985)
- KODAMA, HIDEO. Constraints on the Amplitude of Isothermal Perturbations Imposed by an Isotropy of the Cosmic Microwave Background Radiation. Yasushi Suto, Katsuhiko Sato, and Hideo Kodama. **292**, L1, 50-A3 (1985)
- KORMENDY, JOHN. Brightness Profiles of the Cores of Bulges and Elliptical Galaxies. John Kormendy. **292**, L9, 50-A11 (1985)
- KOUL, P. K. A Possible Explanation of Spatial Structure of X-Rays ≥ 100 keV in Solar Flares Observed by the PVO/ISEE 3 Spacecraft. P. K. Koul, K. L. Moza, P. N. Khosa, and R. R. Rausaria. **292**, 725, 55-F10 (1985)
- KREPLIN, R. W. High-Resolution X-Ray Spectra of Solar Flares. VII. A Long-Duration X-Ray Flare Associated with a Coronal Mass Ejection. R. W. Kreplin, G. A. Daschek, U. Feldman, N. R. Sheeley, Jr., and J. F. Seely. **292**, 309, 49-D3 (1985)
- KUNDU, M. R. Dual Frequency Observations of Solar Microwave Bursts Using the VLA. R. K. Shevgaonkar and M. R. Kundu. **292**, 733, 55-G6 (1985)
- KUNDU, MUKUL R. The Microwave Structure of Hot Coronal Loops. Gordon D. Holman and Mukul R. Kundu. **292**, 291, 49-B12 (1985)
- KURFESS, J. D. Detection of Galactic ²⁶Al Gamma Radiation by the SMM Spectrometer. G. H. Share, R. L. Kinzer, J. D. Kurfess, D. J. Forrest, E. L. Chupp, and E. Rieger. **292**, L61, 57-B12 (1985)
- LACY, J. H. Spectroscopy of the 3 Micron Emission Features. T. R. Geballe, J. H. Lacy, S. E. Persson, P. J. McGregor, and B. T. Soifer. **292**, 500, 53-B12 (1985)
- LAMBERT, DAVID L. Oxygen Isotopic Abundances in Evolved Stars. I. Six Barium Stars. Michael J. Harris, David L. Lambert, and Verne V. Smith. **292**, 620, 54-D14 (1985)
- LATHAM, DAVID W. High-Resolution Spectroscopy of Selected Absorption Lines toward Quasi-stellar Objects. II. The Metal-to-Hydrogen Ratio in a "Metal-free" Cloud toward S5 0014 + 81. Frederic H. Chaffee, Jr., Craig B. Foltz, Hermann-Josef Röser, Ray J. Weyman, and David W. Latham. **292**, 362, 51-F2 (1985)
- LAUER, TOD R. The Cores of Elliptical Galaxies. Tod R. Lauer. **292**, 104, 47-B6 (1985)
- LAWRENCE, J. K. Solar Luminosity Fluctuations during the Disk Transit of an Active Region. J. K. Lawrence, G. A. Chapman, A. D. Herzog, and J. C. Shelton. **292**, 297, 49-C4 (1985)

- and J. C. Shelton. **292**, 297, 49-C4 (1985)
- LEIGHTON, R. B. High-Resolution CO Observations of NGC 7027. C. R. Masson, K. W. Cheng, G. L. Berge, M. J. Claussen, G. M. Heiligman, R. B. Leighton, K. Y. Lo, A. T. Moffet, T. G. Phillips, A. I. Sargent, S. L. Scott, and D. P. Woody. **292**, 464, 52-G3 (1985)
- LEMKE, D. A. Hydrogen-deficient Atmospheres for Cool Carbon Stars. H. R. Johnson, D. R. Alexander, C. D. Bower, D. A. Lemke, D. G. Luttermoser, J. P. Petrakis, M. D. Reinhart, K. A. Welch, and J. H. Goebel. **292**, 228, 48-E2 (1985)
- LEWIS, B. M. H I Observations of Supermassive Spiral Galaxies. B. M. Lewis. **292**, 451, 52-E13 (1985)
- LIEBERT, JAMES. The Optical Spectrum of Hydrogen at 160–350 Million Gauss in the White Dwarf Grw + 70°8247. J. R. P. Angel, James Liebert, and H. S. Stockman. **292**, 260, 48-G8 (1985)
- Discovery of Oxygen in the PG 1159 Degenerate Stars: A Direct Evolutionary Link to O VI Planetary Nebula Nuclei and Confirmation of Pulsation Theory. Edward M. Sion, James Liebert, and Sumner G. Starrfield. **292**, 471, 52-G11 (1985)
- Detection and Analysis of Photospheric CNO Features in the Ultraviolet Spectrum of the Hot DO White Dwarf PG 1034 + 001. Edward M. Sion, James Liebert, and F. Wesemael. **292**, 477, 53-A3 (1985)
- LIN, R. P. Solar ³He-rich Events and Nonrelativistic Electron Events: A New Association. D. V. Reames, T. T. van Roseningh, and R. P. Lin. **292**, 716, 55-E14 (1985)
- LINDBLOM, LEE. On the Nonradial Pulsations of General Relativistic Stellar Models. Steven Detweiler and Lee Lindblom. **292**, 12, 46-B3 (1985)
- LO, K. Y. High-Resolution CO Observations of NGC 7027. C. R. Masson, K. W. Cheng, G. L. Berge, M. J. Claussen, G. M. Heiligman, R. B. Leighton, K. Y. Lo, A. T. Moffet, T. G. Phillips, A. I. Sargent, S. L. Scott, and D. P. Woody. **292**, 464, 52-G3 (1985)
- LOEWENSTEIN, R. F. Active Star Formation in NGC 2264. P. R. Schwartz, Harley A. Thronson, Jr., Sten F. Odenwald, W. Glaccum, R. F. Loewenstein, and Grace Wolf. **292**, 231, 48-E5 (1985)
- LUCK, R. EARLE. Extremely Metal-deficient Red Giants. III. Chemical Abundance Patterns in Field Halo Giants. R. Earle Luck and Howard E. Bond. **292**, 559, 53-G4 (1985)
- LUTTERMOSER, D. G. Hydrogen-deficient Atmospheres for Cool Carbon Stars. H. R. Johnson, D. R. Alexander, C. D. Bower, D. A. Lemke, D. G. Luttermoser, J. P. Petrakis, M. D. Reinhart, K. A. Welch, and J. H. Goebel. **292**, 228, 48-E2 (1985)
- LYTLE, D. M. A Search for Long-lived Velocity Fields at the Solar Poles. B. R. Durney, L. E. Cram, D. B. Guenther, S. L. Keil, and D. M. Lytle. **292**, 752, 56-A13 (1985)
- MACKINNON, A. L. Bremsstrahlung Spectra from Thick-Target Electron Beams with Noncollisional Energy Losses. John C. Brown and A. L. MacKinnon. **292**, L31, 50-C8 (1985)
- MADORE, B. F. An Improved Calibration of the Near-Infrared Period-Luminosity Relations for Cepheids. D. L. Welch, C. W. McAlary, B. F. Madore, R. A. McLaren, and G. Neugebauer. **292**, 217, 48-D5 (1985)
- MANAGAN, ROBERT A. An Eulerian Variational Principle and a Criterion for the Occurrence of Nonaxisymmetric Neutral Modes along Rotating Axisymmetric Sequences. James R. Ipser and Robert A. Managan. **292**, 517, 53-D2 (1985)
- MASEGOSA, JOSEFA. UVBRI Observations of BL Lacertae Objects (Abstract of Paper in 1985 June Suppl.). Mariano Moles, José Manuel García-Pelayo, Josefa Masegosa, and Antonio Aparicio. **292**, 766, 56-C3 (1985)
- MASSON, C. R. High-Resolution CO Observations of NGC 7027. C. R. Masson, K. W. Cheng, G. L. Berge, M. J. Claussen, G. M. Heiligman, R. B. Leighton, K. Y. Lo, A. T. Moffet, T. G. Phillips, A. I. Sargent, S. L. Scott, and D. P. Woody. **292**, 464, 52-G3 (1985)
- MATEO, MARIO. Ultraviolet, Optical, and Infrared Observations of the Intermediate Polar TV Columbae: Erratum. Mario Mateo, Paula Szkody, and John Hutchings. **292**, 763, 56-B12 (1985) (Orig. paper in **288**, 292, 4-B4)
- MATHEWSON, D. S. Supernova Remnants in the Magellanic Clouds. III. (Abstract of Paper in 1985 June Suppl.). D. S. Mathewson, V. L. Ford, I. R. Tuohy, B. Y. Mills, A. J. Turtle, and D. J. Helfand. **292**, 764, 56-C1 (1985)
- MATHIS, JOHN S. Spectrophotometry and Chemical Composition of the 30 Doradus Nebula. John S. Mathis, You-Hua Chu, and Daniel E. Peterson. **292**, 155, 47-F13 (1985)
- MCALARY, C. W. An Improved Calibration of the Near-Infrared Period-Luminosity Relations for Cepheids. D. L. Welch, C. W. McAlary, B. F. Madore, R. A. McLaren, and G. Neugebauer. **292**, 217, 48-D5 (1985)
- MCGREGOR, P. J. Spectroscopy of the 3 Micron Emission Features. T. R. Geballe, J. H. Lacy, S. E. Persson, P. J. McGregor, and B. T. Soifer. **292**, 500, 53-B12 (1985)
- MCLAREN, R. A. An Improved Calibration of the Near-Infrared Period-Luminosity Relations for Cepheids. D. L. Welch, C. W. McAlary, B. F. Madore, R. A. McLaren, and G. Neugebauer. **292**, 217, 48-D5 (1985)
- MELLOTT, ADRIAN L. Statistical Comparison of Galaxy Formation Models: The Bispectrum. J. N. Fry and Adrian L. Melott. **292**, 395, 52-A13 (1985)
- MEYERS, K. A. The Variability of the Spectrum of Arakelian 120. II. Evidence for a Small Broad Line Emitting Region. B. M. Peterson, K. A. Meyers, E. R. Capriotti, C. B. Foltz, B. J. Wilkes, and H. R. Miller. **292**, 164, 47-G8 (1985)
- MICELA, G. Einstein X-Ray Survey of the Pleiades: The Dependence of X-Ray Emission on Stellar Age. G. Micela, S. Sciortino, S. Serio, G. S. Vaiana, J. Bookbinder, L. Golub, F. R. Harnden, Jr., and R. Rosner. **292**, 172, 48-A2 (1985)
- MIDDLEDITCH, J. Optical and Infrared Pulsations from the HZ Herculis Binary System during the 1983 Prolonged X-Ray Low State. J. Middleditch, R. C. Puetter, and C. R. Pennypacker. **292**, 267, 49-A2 (1985)
- MILGROM, M. Two-Phase Accretion Model for Emission-Line Regions in Quasars and Active Galactic Nuclei. A. Wandel, M. Milgrom, and A. Yahil. **292**, 206, 48-C8 (1985)
- MILLER, H. R. The Variability of the Spectrum of Arakelian 120. II. Evidence for a Small Broad Line Emitting Region. B. M. Peterson, K. A. Meyers, E. R. Capriotti, C. B. Foltz, B. J. Wilkes, and H. R. Miller. **292**, 164, 47-G8 (1985)
- MILLS, B. Y. Supernova Remnants in the Magellanic Clouds. III. (Abstract of Paper in 1985 June Suppl.). D. S. Mathewson, V. L. Ford, I. R. Tuohy, B. Y. Mills, A. J. Turtle, and D. J. Helfand. **292**, 764, 56-C1 (1985)
- MOFFAT, ANTHONY F. J. Wolf-Rayet Stars in the Magellanic Clouds. III. The W04 + O4 V Binary Sk 188 in the SMC. Anthony F. J. Moffat, Jacques Breysacher, and Wilhelm Seggewiss. **292**, 511, 53-C10 (1985)
- MOFFAT, A. T. High-Resolution CO Observations of NGC 7027. C. R. Masson, K. W. Cheng, G. L. Berge, M. J. Claussen, G. M. Heiligman, R. B. Leighton, K. Y. Lo, A. T. Moffet, T. G. Phillips, A. I. Sargent, S. L. Scott, and D. P. Woody. **292**, 464, 52-G3 (1985)
- MOLES, MARIANO. UVBRI Observations of BL Lacertae Objects (Abstract of Paper in 1985 June Suppl.). Mariano Moles, José Manuel García-Pelayo, Josefa Masegosa, and Antonio Aparicio. **292**, 766, 56-C3 (1985)
- MORRIS, M. Condensation onto Grains in the Outflows from Mass-losing Red Giants. M. Jura and M. Morris. **292**, 487, 53-A13 (1985)
- MORRIS, MARK. Mass Loss from Evolved Stars. III. Mass Loss Rates for Fifty Stars from CO J = 1–0 Observations. G. R. Knapp and Mark Morris. **292**, 640, 54-F7 (1985)
- MOSELEY, H. Atmospheric Temperature Profiles of Uranus and Neptune. H. Moseley, B. Conrath, and R. F. Silverberg. **292**, L83, 57-D5 (1985)
- MOZA, K. L. A Possible Explanation of Spatial Structure of X-Rays ≥ 100 keV in Solar Flares Observed by the PVO/ISEE 3 Spacecraft. P. K. Koul, K. L. Moza, P. N. Khosa, and R. R. Rausara. **292**, 725, 55-F10 (1985)
- MUNDT, REINHARD. Mass Loss in T Tauri Stars: Observational Studies of the Cool Parts of Their Stellar Winds and Expanding Shells: Erratum. Reinhard Mundt. **292**, 763, 56-B12 (1985) (Orig. paper in **280**, 749, 58-A6)
- MUSHOTSKY, R. Consequences of Hot Gas in the Broad-Line Region of Active Galactic Nuclei. T. Kallman and R. Mushotsky. **292**, 49, 46-E2 (1985)
- MUSHOTSKY, RICHARD F. The Physical Implications of an Isothermal Model for the Hot Intracluster Medium. Mark J. Henriksen and Richard F. Mushotsky. **292**, 441, 52-E3 (1985)
- NARASIMHA, D. The Gravitational Lens as an Astronomical Diagnostic. William C. Saslaw, D. Narasimha, and S. M. Chitre. **292**, 348, 51-E2 (1985)
- NATHER, R. E. A Measurement of Secular Evolution in the Pre-White Dwarf Star PG 1159-035. D. E. Winget, S. O. Kepler, E. L. Robinson, R. E. Nather, and Darrah O'Donoghue. **292**, 606, 54-C13 (1985)
- NETZER, HAGAI. The Ultraviolet Spectra of Active Galaxies with Weak Optical Fe II Lines. Hagai Netzer, W. Wamsteker, Beverley J. Wills, and D. Wills. **292**, 143, 47-E13 (1985)
- NEUGEBAUER, G. An Improved Calibration of the Near-Infrared Period-Luminosity Relations for Cepheids. D. L. Welch, C. W. McAlary, B. F. Madore, R. A. McLaren, and G. Neugebauer. **292**, 217, 48-D5 (1985)
- ODENWALD, S. F. Star-forming Regions Near the Supernova Remnant IC 433. S. F. Odenwald and K. Shivamandan. **292**, 460, 52-F10 (1985)
- ODENWALD, STEN F. Active Star Formation in NGC 2264. P. R. Schwartz, Harley A. Thronson, Jr., Sten F. Odenwald, W. Glaccum, R. F. Loewenstein, and Grace Wolf. **292**, 231, 48-E5 (1985)

- O'DONOGHUE, DARRAGH. A Measurement of Secular Evolution in the Pre-White Dwarf Star PG 1159-035. *D. E. Winget, S. O. Kepler, E. L. Robinson, R. E. Nather, and Darragh O'Donoghue.* **292**, 606, 54-C13 (1985)
- OKAMURA, S. Digital Surface Photometry of Galaxies toward a Quantitative Classification. IV. Principal Component Analysis of Surface-photometric Parameters. *M. Watanabe, K. Kodaira, and S. Okamura.* **292**, 72, 46-F11 (1985)
- OLIVE, KEITH A. Recent Heavy-Particle Decay in a Matter-dominated Universe. *Keith A. Olive, David Seckel, and Ethan Vishniac.* **292**, 1, 46-A6 (1985)
- PAPADOPOULOS, DEMETRIOS. Absorption of Gravitational Energy by a Viscous Compressible Fluid in a Curved Spacetime. *Demetrios Papadopoulos and F. Paul Esposito.* **292**, 330, 51-C12 (1985)
- PATTERSON, JOSEPH. X-Ray Emission from Cataclysmic Variables with Accretion Disks. I. Hard X-Rays. *Joseph Patterson and J. C. Raymond.* **292**, 535, 53-E6 (1985)
- X-Ray Emission from Cataclysmic Variables with Accretion Disks. II. EUV/Soft X-Ray Radiation. *Joseph Patterson and J. C. Raymond.* **292**, 550, 53-F8 (1985)
- PENNYPACKER, C. R. Optical and Infrared Pulsations from the HZ Herculis Binary System during the 1983 Prolonged X-Ray Low State. *J. Middleditch, R. C. Puetter, and C. R. Pennyacker.* **292**, 267, 49-A2 (1985)
- PENSELL, W. DEAN. Observable Quantities of Nonradial Pulsations in the Presence of Slow Rotation. *W. Dean Pensell.* **292**, 238, 48-E13 (1985)
- PERFETTO, A. A. Observations of 3C 273 with High North-South Resolution. *J. A. Biretta, M. H. Cohen, H. E. Hardebeck, P. Kaufmann, Z. Abraham, A. A. Peretto, E. Scalise, Jr., R. E. Schaaf, and P. M. Silva.* **292**, 15, 50-A7 (1985)
- PERSSON, S. E. Spectroscopy of the 3 Micron Emission Features. *T. R. Geballe, J. H. Lacy, S. E. Persson, P. J. McGregor, and B. T. Soifer.* **292**, 500, 53-B12 (1985)
- PETERSON, B. M. The Variability of the Spectrum of Arakelian 120. II. Evidence for a Small Broad Line Emitting Region. *B. M. Peterson, K. A. Meyers, E. R. Capriotti, C. B. Foltz, B. J. Wilkes, and H. R. Miller.* **292**, 164, 47-G8 (1985)
- PETERSON, DANIEL E. Spectrophotometry and Chemical Composition of the 30 Doradus Nebula. *John S. Mathis, You-Hua Chu, and Daniel E. Peterson.* **292**, 155, 47-F13 (1985)
- PETRAKIS, J. P. Hydrogen-deficient Atmospheres for Cool Carbon Stars. *H. R. Johnson, D. R. Alexander, C. D. Bower, D. A. Lemke, D. G. Luttermoser, J. P. Petrakis, M. D. Reinhart, K. A. Welch, and J. H. Goebel.* **292**, 228, 48-E2 (1985)
- PHILLIPS, T. G. High-Resolution CO Observations of NGC 7027. *C. R. Masson, K. W. Cheng, G. L. Berge, M. J. Claussen, G. M. Heiligman, R. B. Leighton, K. Y. Lo, A. T. Moffet, T. G. Phillips, A. I. Sargent, S. L. Scott, and D. P. Woody.* **292**, 464, 52-G3 (1985)
- PROFFITT, CHARLES. Ultraviolet Studies of Stars in the Populus Cluster NGC 2100 in the Large Magellanic Cloud. *Erika Böhm-Vitense, Paul Hodge, and Charles Proffitt.* **292**, 130, 47-D8 (1985)
- PUETTER, R. C. Optical and Infrared Pulsations from the HZ Herculis Binary System during the 1983 Prolonged X-Ray Low State. *J. Middleditch, R. C. Puetter, and C. R. Pennyacker.* **292**, 267, 49-A2 (1985)
- RAASSEN, A. J. J. Additional Identifications of High Ionization Stages of Iron and Nickel in the Ultraviolet Spectrum of the Slow Nova RR Telescopii. *A. J. J. Raassen.* **292**, 696, 55-D2 (1985)
- RAGA, ALEX C. Predicted Long-Slit, High-Resolution Emission-Line Profiles from Interstellar Bow Shocks (Abstract of Paper in 1985 June Suppl.). *Alex C. Raga and Karl-Heinz Böhm.* **292**, 765, 56-C2 (1985)
- RAUSARIA, R. A Possible Explanation of Spatial Structure of X-Rays ≥ 100 keV in Solar Flares Observed by the PVO/ISEE 3 Spacecraft. *P. K. Koul, K. L. Moza, P. N. Khosa, and R. R. Rausaria.* **292**, 725, 55-F10 (1985)
- RAYMOND, J. C. X-Ray Emission from Cataclysmic Variables with Accretion Disks. I. Hard X-Rays. *Joseph Patterson and J. C. Raymond.* **292**, 535, 53-E6 (1985)
- X-Ray Emission from Cataclysmic Variables with Accretion Disks. II. EUV/Soft X-Ray Radiation. *Joseph Patterson and J. C. Raymond.* **292**, 550, 53-F8 (1985)
- REAMES, D. V. Solar ^3He -rich Events and Nonrelativistic Electron Events: A New Association. *D. V. Reames, T. T. van Rosenvingh, and R. P. Lin.* **292**, 716, 55-E14 (1985)
- REINHART, M. D. Hydrogen-deficient Atmospheres for Cool Carbon Stars. *H. R. Johnson, D. R. Alexander, C. D. Bower, D. A. Lemke, D. G. Luttermoser, J. P. Petrakis, M. D. Reinhart, K. A. Welch, and J. H. Goebel.* **292**, 228, 48-E2 (1985)
- RICHER, HARVEY B. Deep CCD Photometry in Globular Clusters. III. M15 (Abstract of Paper in 1985 June Suppl.). *Gregory G. Fahlan, Harvey B. Richer, and Don A. Vandenberg.* **292**, 765, 56-C2 (1985)
- RICKARD, L. J. Carbon Monoxide Isotope Ratios in Galactic Centers and Disks. *L. J. Rickard and L. Blitz.* **292**, L57, 57-B8 (1985)
- RIEGER, E. Detection of Galactic ^{26}Al Gamma Radiation by the SMM Spectrometer. *G. H. Share, R. L. Kinzer, J. D. Kurfess, D. J. Forrest, E. L. Chupp, and E. Rieger.* **292**, L61, 57-B12 (1985)
- RIVOLLO, A. R. The Massachusetts-Stony Brook Galactic Plane CO Survey: Disk and Spiral Arm Molecular Cloud Populations. *P. M. Solomon, D. B. Sanders, and A. R. Rivolo.* **292**, L19, 50-B7 (1985)
- ROBERTS, M. J. The Action of Inexorable Meridional Circulation on a Stellar Magnetic Field. *M. J. Roberts and W. P. Wood.* **292**, 578, 54-A10 (1985)
- ROBINSON, E. L. A Measurement of Secular Evolution in the Pre-White Dwarf Star PG 1159-035. *D. E. Winget, S. O. Kepler, E. L. Robinson, R. E. Nather, and Darragh O'Donoghue.* **292**, 606, 54-C13 (1985)
- ROGERSON, JOHN B., JR. Ultraviolet Line Identifications for Tau Scorpii (Abstract of Paper in 1985 June Suppl.). *John B. Rogerson, Jr. and Malcolm W. Ewell, Jr.* **292**, 766, 56-C3 (1985)
- ROMANISHIN, W. Optical and Radio Observations for the BL Lacertae Objects 1219 + 28, 0851 + 202, and 1400 + 162. *Donna Weistrop, David B. Shaffer, Paul Hintzen, and W. Romanishin.* **292**, 614, 54-D8 (1985)
- RÖSER, HERMANN-JOSEF. High-Resolution Spectroscopy of Selected Absorption Lines toward Quasi-stellar Objects. II. The Metal-to-Hydrogen Ratio in a "Metal-free" Cloud toward S5 0014 + 81. *Frederic H. Chaffee, Jr., Craig B. Foltz, Hermann-Josef Röser, Ray J. Weyman, and David W. Latham.* **292**, 362, 51-F2 (1985)
- ROSNER, R. Einstein X-Ray Survey of the Pleiades: The Dependence of X-Ray Emission on Stellar Age. *G. Micela, S. Sciortino, S. Serio, G. S. Vaiana, J. Bookbinder, L. Golub, F. R. Harnden, Jr., and R. Rosner.* **292**, 172, 48-A2 (1985)
- ROWLEY, J. K. Chlorine and Gallium Solar Neutrino Experiments. *J. N. Bahcall, B. T. Cleveland, R. Davis, Jr., and J. K. Rowley.* **292**, L79, 57-D1 (1985)
- SALPETER, E. E. H I Mapping of Galaxies in the Hercules Cluster. *E. E. Salpeter and J. M. Dickey.* **292**, 426, 52-D4 (1985)
- Arecibo H I Data for 136 Spiral Galaxies (Abstract of Paper in 1985 June Suppl.). *Carlo Giovanardi and E. E. Salpeter.* **292**, 764, 56-C1 (1985)
- SANDERS, D. B. The Massachusetts-Stony Brook Galactic Plane CO Survey: Disk and Spiral Arm Molecular Cloud Populations. *P. M. Solomon, D. B. Sanders, and A. R. Rivolo.* **292**, L19, 50-B7 (1985)
- SARGENT, A. I. High-Resolution CO Observations of NGC 7027. *C. R. Masson, K. W. Cheng, G. L. Berge, M. J. Claussen, G. M. Heiligman, R. B. Leighton, K. Y. Lo, A. T. Moffet, T. G. Phillips, A. I. Sargent, S. L. Scott, and D. P. Woody.* **292**, 464, 52-G3 (1985)
- SARGENT, ANNEILA I. Radio and Infrared Observations of OH/IR Stars at the Tangential Point and near the Galactic Center. *B. Baud, Anneila I. Sargent, M. W. Werner, and A. F. Bentley.* **292**, 628, 54-E8 (1985)
- SASLAW, WILLIAM C. Equipartition in Multicomponent Gravitational Systems. *Shogo Inagaki and William C. Saslaw.* **292**, 339, 51-D7 (1985)
- The Gravitational Lens as an Astronomical Diagnostic. *William C. Saslaw, D. Narasimha, and S. M. Chitre.* **292**, 348, 51-E2 (1985)
- SATO, KATSUHIKO. Constraints on the Amplitude of Isothermal Perturbations Imposed by an Isotropy of the Cosmic Microwave Background Radiation. *Yasushi Suto, Katsuhiko Sato, and Hideo Kodama.* **292**, L1, 50-A3 (1985)
- SAVAGE, BLAIR D. Ultraviolet Interstellar Absorption toward Stars in the Small Magellanic Cloud. IV. Highly Ionized Gas Associated with the Small Magellanic Cloud. *Edward L. Fitzpatrick and Blair D. Savage.* **292**, 122, 47-C12 (1985)
- SCALISE, E., JR. Observations of 3C 273 with High North-South Resolution. *J. A. Biretta, M. H. Cohen, H. E. Hardebeck, P. Kaufmann, Z. Abraham, A. A. Peretto, E. Scalise, Jr., R. E. Schaaf, and P. M. Silva.* **292**, 15, 50-A7 (1985)
- SCARGLE, JEFFREY D. Wavy Edges Suggest Moonlet in Encke's Gap. *Jeffrey N. Cuzzi and Jeffrey D. Scargle.* **292**, 276, 49-A11 (1985)
- SCHAAL, R. E. Observations of 3C 273 with High North-South Resolution. *J. A. Biretta, M. H. Cohen, H. E. Hardebeck, P. Kaufmann, Z. Abraham, A. A. Peretto, E. Scalise, Jr., R. E. Schaaf, and P. M. Silva.* **292**, 15, 50-A7 (1985)
- SCHAEFFER, RICHARD. Biased Galaxy Formation in a Universe Dominated by Cold Dark Matter. *Richard Schaeffer and Joseph Silk.* **292**, 319, 51-C1 (1985)
- SCHWARTZ, P. R. Active Star Formation in NGC 2264. *P. R. Schwartz, Harley A. Thronson, Jr., Sten F. Odenwald, W. Glaccum, R. F. Loewenstein, and Grace Wolf.* **292**, 231, 48-E5 (1985)
- SCIORTINO, S. Einstein X-Ray Survey of the Pleiades: The Dependence of X-Ray Emission on Stellar Age. *G. Micela, S. Sciortino, S. Serio, G. S. Vaiana, J. Bookbinder, L. Golub, F. R. Harnden, Jr., and R. Rosner.* **292**, 172, 48-A2 (1985)

- SCOTT, S. L. High-Resolution CO Observations of NGC 7027. C. R. Masson, K. W. Cheng, G. L. Berge, M. J. Claussen, G. M. Heiligman, R. B. Leighton, K. Y. Lo, A. T. Moffet, T. G. Phillips, A. I. Sargent, S. L. Scott, and D. P. Woody. **292**, 464, 52-G3 (1985)
- SECKEL, DAVID. Recent Heavy-Particle Decay in a Matter-dominated Universe. Keith A. Olive, David Seckel, and Ethan Vishniac. **292**, 1, 46-A6 (1985)
- SEELY, J. F. High-Resolution X-Ray Spectra of Solar Flares. VII. A Long-Duration X-Ray Flare Associated with a Coronal Mass Ejection. R. W. Kreplin, G. A. Doschek, U. Feldman, N. R. Sheeley, Jr., and J. F. Seely. **292**, 309, 49-D3 (1985)
- SEGGEWISS, WILHELM. Wolf-Rayet Stars in the Magellanic Clouds. III. The W04 + O4 V Binary Sk 188 in the SMC. Anthony F. J. Moffat, Jacques Breysacher, and Wilhelm Seggewiss. **292**, 511, 53-C10 (1985)
- SELLWOOD, J. A. Dynamical Evolution in Galactic Disks. R. G. Carlberg and J. A. Sellwood. **292**, 79, 46-G4 (1985)
- SERIO, S. Einstein X-Ray Survey of the Pleiades: The Dependence of X-Ray Emission on Stellar Age. G. Micela, S. Sciortino, S. Serio, G. S. Vaiana, J. Bookbinder, L. Golub, F. R. Harnden, Jr., and R. Rosner. **292**, 172, 48-A2 (1985)
- SHAFFER, DAVID B. Optical and Radio Observations for the BL Lacertae Objects 1219 + 28, 0851 + 202, and 1400 + 162. Donna Weistrop, David B. Shaffer, Paul Hintzen, and W. Romanishin. **292**, 614, 54-D8 (1985)
- SHAPIRO, STUART L. The Collapse of Dense Star Clusters to Supermassive Black Holes: The Origin of Quasars and AGNs. Stuart L. Shapiro and Saul A. Teukolsky. **292**, L41, 57-A7 (1985)
- SHARE, G. H. Detection of Galactic ^{26}Al Gamma Radiation by the SMM Spectrometer. G. H. Share, R. L. Kinzer, J. D. Kurfess, D. J. Forrest, E. L. Chupp, and E. Rieger. **292**, L61, 57-B12 (1985)
- SHEELEY, N. R., JR. High-Resolution X-Ray Spectra of Solar Flares. VII. A Long-Duration X-Ray Flare Associated with a Coronal Mass Ejection. R. W. Kreplin, G. A. Doschek, U. Feldman, N. R. Sheeley, Jr., and J. F. Seely. **292**, 309, 49-D3 (1985)
- SHELTON, J. C. Solar Luminosity Fluctuations during the Disk Transit of an Active Region. J. K. Lawrence, G. A. Chapman, A. D. Herzog, and J. C. Shelton. **292**, 297, 49-C4 (1985)
- SHEVGAONKAR, R. K. Dual Frequency Observations of Solar Microwave Bursts Using the VLA. R. K. Shevgaonkar and M. R. Kundu. **292**, 733, 55-G6 (1985)
- SHIVANANDAN, K. Star-forming Regions Near the Supernova Remnant IC 433. S. F. Odenwald and K. Shivanandan. **292**, 460, 52-F10 (1985)
- SHULL, J. M. The Unexpected Ultraviolet Variability of Herbig-Haro Object 1. E. W. Bruugel, K. H. Böhm, J. M. Shull, and E. Böhm-Vitense. **292**, L75, 57-C11 (1985)
- SILK, JOSEPH. Far-Infrared Line Intensities of H_2O and CO from Warm Molecular Clouds. Takamasa Takahashi, David J. Hollenbach, and Joseph Silk. **292**, 192, 48-B8 (1985)
- Biased Galaxy Formation in a Universe Dominated by Cold Dark Matter. Richard Schaeffer and Joseph Silk. **292**, 319, 51-C1 (1985)
- Macroscopic Turbulence in Molecular Clouds. Joseph Silk. **292**, L71, 57-C7 (1985)
- SILVA, P. M. Observations of 3C 273 with High North-South Resolution. J. A. Biretta, M. H. Cohen, H. E. Hardebeck, P. Kaufmann, Z. Abraham, A. A. Peretto, E. Scalise, Jr., R. E. Schaal, and P. M. Silva. **292**, L5, 50-A7 (1985)
- SILVERBERG, R. F. Atmospheric Temperature Profiles of Uranus and Neptune. H. Moseley, B. Conrath, and R. F. Silverberg. **292**, L83, 57-D5 (1985)
- SION, EDWARD M. Discovery of Oxygen in the PG 1159 Degenerate Stars: A Direct Evolutionary Link to O VI Planetary Nebula Nuclei and Confirmation of Pulsation Theory. Edward M. Sion, James Liebert, and Sumner G. Starrfield. **292**, 471, 52-G11 (1985)
- Detection and Analysis of Photospheric CNO Features in the Ultraviolet Spectrum of the Hot DO White Dwarf PG 1034 + 001. Edward M. Sion, James Liebert, and F. Wesemael. **292**, 477, 53-A3 (1985)
- On the Nature of the UX Ursa Majoris-Type Nova-like Variables: CPD -48°1577. Edward M. Sion. **292**, 601, 54-C8 (1985)
- SMITH, ANDREW M. Images in the Rocket Ultraviolet: The Initial Helium Abundance and Distance Modulus of the Globular Cluster M5 from Photometry of Horizontal-Branch Stars. Ralph C. Bohlin, Robert H. Cornett, Jesse K. Hill, Andrew M. Smith, and Theodore P. Stecher. **292**, 687, 55-C6 (1985)
- SMITH, VERNE V. Oxygen Isotopic Abundances in Evolved Stars. I. Six Barium Stars. Michael J. Harris, David L. Lambert, and Verne V. Smith. **292**, 620, 54-D14 (1985)
- SOIFER, B. T. Spectroscopy of the 3 Micron Emission Features. T. R. Geballe, J. H. Lacy, S. E. Persson, P. J. McGregor, and B. T. Soifer. **292**, 500, 53-B12 (1985)
- SOLOMON, P. M. The Massachusetts-Stony Brook Galactic Plane CO Survey: Disk and Spiral Arm Molecular Cloud Populations. P. M. Solomon, D. B. Sanders, and A. R. Rivolo. **292**, L19, 50-B7 (1985)
- SREENIVASAN, S. R. The Evolution of Massive Stars Losing Mass and Angular Momentum: Rotational Mixing in Early-Type Stars. S. R. Sreenivasan and W. J. F. Wilson. **292**, 506, 53-C5 (1985)
- STARRFIELD, SUMNER G. Discovery of Oxygen in the PG 1159 Degenerate Stars: A Direct Evolutionary Link to O VI Planetary Nebula Nuclei and Confirmation of Pulsation Theory. Edward M. Sion, James Liebert, and Sumner G. Starrfield. **292**, 471, 52-G11 (1985)
- STECHEER, THEODORE P. Images in the Rocket Ultraviolet: The Initial Helium Abundance and Distance Modulus of the Globular Cluster M5 from Photometry of Horizontal-Branch Stars. Ralph C. Bohlin, Robert H. Cornett, Jesse K. Hill, Andrew M. Smith, and Theodore P. Stecher. **292**, 687, 55-C6 (1985)
- STOCKMAN, H. S. The Optical Spectrum of Hydrogen at 160–350 Million Gauss in the White Dwarf Grw + 70°8247. J. R. P. Angel, James Liebert, and H. S. Stockman. **292**, 260, 48-G8 (1985)
- STOTHERS, RICHARD B. Stellar Evolution at High Mass with Convective Core Overshooting. Richard B. Stothers and Chao-wen Chin. **292**, 222, 48-D10 (1985)
- SUTO, YASUSHI. Constraints on the Amplitude of Isothermal Perturbations Imposed by an Isotropy of the Cosmic Microwave Background Radiation. Yasushi Suto, Katsuhiko Sato, and Hideo Kodama. **292**, L1, 50-A3 (1985)
- SZKODY, PAULA. Ultraviolet, Optical, and Infrared Observations of the Intermediate Polar TV Columbae: Erratum. Mario Mateo, Paula Szkody, and John Hutchings. **292**, 763, 56-B12 (1985) (Orig. paper in **288**, 292, 4-B4)
- TAKAHASHI, TAKAMASA. Far-Infrared Line Intensities of H_2O and CO from Warm Molecular Clouds. Takamasa Takahashi, David J. Hollenbach, and Joseph Silk. **292**, 192, 48-B8 (1985)
- TANANBAUM, HARVEY. The Diversity of Soft X-Ray Spectra in Quasars. Martin Elvis, Belinda J. Wilkes, and Harvey Tananbaum. **292**, 357, 51-E11 (1985)
- TESKE, RICHARD G. An [Fe x] $\lambda 6374$ Image of Part of the Cygnus Loop. Richard G. Teske and Robert P. Kirshner. **292**, 22, 46-B13 (1985)
- TEUKOLSKY, SAUL A. The Collapse of Dense Star Clusters to Supermassive Black Holes: The Origin of Quasars and AGNs. Stuart L. Shapiro and Saul A. Teukolsky. **292**, L41, 57-A7 (1985)
- THRONSON, HARLEY A., JR. Active Star Formation in NGC 2264. P. R. Schwartz, Harley A. Thronson, Jr., Sten F. Odenwald, W. Glaccum, R. F. Loewenstein, and Grace Wolf. **292**, 231, 48-E5 (1985)
- TOHLINE, JOEL E. Star Formation: Phase Transition, Not Jeans Instability. Joel E. Tohline. **292**, L81, 48-A11 (1985)
- TUOHY, I. R. Supernova Remnants in the Magellanic Clouds. III. (Abstract of Paper in 1985 June Suppl.). D. S. Mathewson, V. L. Ford, I. R. Tuohy, B. Y. Mills, A. J. Turtle, and D. J. Helfand. **292**, 764, 56-C1 (1985)
- TURNER, B. E. Detection of Interstellar Rotationally Excited CH. L. M. Ziurys and B. E. Turner. **292**, L25, 50-B14 (1985)
- TURNER, DAVID G. The Young Open Cluster Stock 16: An Example of Star Formation in an Elephant Trunk? David G. Turner. **292**, 148, 47-F4 (1985)
- TURTLE, A. J. Supernova Remnants in the Magellanic Clouds. III. (Abstract of Paper in 1985 June Suppl.). D. S. Mathewson, V. L. Ford, I. R. Tuohy, B. Y. Mills, A. J. Turtle, and D. J. Helfand. **292**, 764, 56-C1 (1985)
- VAIANA, G. S. Einstein X-Ray Survey of the Pleiades: The Dependence of X-Ray Emission on Stellar Age. G. Micela, S. Sciortino, S. Serio, G. S. Vaiana, J. Bookbinder, L. Golub, F. R. Harnden, Jr., and R. Rosner. **292**, 172, 48-A2 (1985)
- VANDENBERG, DON A. Deep CCD Photometry in Globular Clusters. III. M15 (Abstract of Paper in 1985 June Suppl.). Gregory G. Fahlan, Harvey B. Richer, and Don A. Vandenberg. **292**, 765, 56-C2 (1985)
- VAN ROSENVINGH, T. T. Solar ^3He -rich Events and Nonrelativistic Electron Events: A New Association. D. V. Reames, T. T. van Rosenvinh, and R. P. Lin. **292**, 716, 55-E14 (1985)
- VISHNIAC, ETHAN. Recent Heavy-Particle Decay in a Matter-dominated Universe. Keith A. Olive, David Seckel, and Ethan Vishniac. **292**, 1, 46-A6 (1985)
- WAMSTEKER, W. The Ultraviolet Spectra of Active Galaxies with Weak Optical Fe II Lines. Hagai Netzer, W. Wamsteker, Beverley J. Wills, and D. Wills. **292**, 143, 47-E13 (1985)
- Outflow in the Nucleus of the Seyfert I Galaxy NGC 3783. W. Wamsteker and P. Barr. **292**, L45, 57-A12 (1985)
- WANDEL, A. Two-Phase Accretion Model for Emission-Line Regions in Quasars and Active Galactic Nuclei. A. Wandel, M. Milgrom, and A. Yahil. **292**, 206, 48-C8 (1985)
- WATANABE, M. Digital Surface Photometry of Galaxies toward a Quantitative Classification. IV. Principal Component Analysis of Surface-photometric Parameters. M. Watanabe, K. Kodaira, and S. Okamura. **292**, 72, 46-F11 (1985)

- WEISTROP, DONNA. Optical and Radio Observations for the BL Lacertae Objects 1219 + 28, 0851 + 202, and 1400 + 162. *Donna Weistrop, David B. Shaffer, Paul Hintzen, and W. Romanishin.* **292**, 614, 54-D8 (1985)
- WELCH, D. L. An Improved Calibration of the Near-Infrared Period-Luminosity Relations for Cepheids. *D. L. Welch, C. W. McAlary, B. F. Madore, R. A. McLaren, and G. Neugebauer.* **292**, 217, 48-D5 (1985)
- WELCH, K. A. Hydrogen-deficient Atmospheres for Cool Carbon Stars. *H. R. Johnson, D. R. Alexander, C. D. Bower, D. A. Lemke, D. G. Luttermoser, J. P. Petrakis, M. D. Reinhart, K. A. Welch, and J. H. Goebel.* **292**, 228, 48-E2 (1985)
- WELCH, W. J. The Binary System MWC 349. *Martin Cohen, J. H. Bieging, J. W. Dreher, and W. J. Welch.* **292**, 249, 48-F10 (1985)
- WERNER, M. W. Radio and Infrared Observations of OH/IR Stars at the Tangential Point and near the Galactic Center. *B. Baud, Anneila I. Sargent, M. W. Werner, and A. F. Bentley.* **292**, 628, 54-E8 (1985)
- WESEMAEL, F. Detection and Analysis of Photospheric CNO Features in the Ultraviolet Spectrum of the Hot DO White Dwarf PG 1034 + 001. *Edward M. Sion, James Liebert, and F. Wesemael.* **292**, 477, 53-A3 (1985)
- WEYMAN, RAY J. High-Resolution Spectroscopy of Selected Absorption Lines toward Quasi-stellar Objects. II. The Metal-to-Hydrogen Ratio in a "Metal-free" Cloud toward S5 0014 + 81. *Frederic H. Chaffee, Jr., Craig B. Foltz, Hermann-Josef Röser, Ray J. Weyman, and David W. Latham.* **292**, 362, 51-F2 (1985)
- WHITE, SIMON D. M. The Evolution of Large-Scale Structure in a Universe Dominated by Cold Dark Matter. *Marc Davis, George Efsthathiou, Carlos S. Frenk, and Simon D. M. White.* **292**, 371, 51-F12 (1985)
- WILKES, B. J. The Variability of the Spectrum of Arakelian 120. II. Evidence for a Small Broad Line Emitting Region. *B. M. Peterson, K. A. Meyers, E. R. Capriotti, C. B. Foltz, B. J. Wilkes, and H. R. Miller.* **292**, 164, 47-G8 (1985)
- WILKES, BELINDA J. The Diversity of Soft X-Ray Spectra in Quasars. *Martin Elvis, Belinda J. Wilkes, and Harvey Tananbaum.* **292**, 357, 51-E11 (1985)
- WILLS, BEVERLEY J. The Ultraviolet Spectra of Active Galaxies with Weak Optical Fe II Lines. *Hagai Netzer, W. Wamsteker, Beverley J. Wills, and D. Wills.* **292**, 143, 47-E13 (1985)
- WILLS, D. The Ultraviolet Spectra of Active Galaxies with Weak Optical Fe II Lines. *Hagai Netzer, W. Wamsteker, Beverley J. Wills, and D. Wills.* **292**, 143, 47-E13 (1985)
- WILSON, W. J. F. The Evolution of Massive Stars Losing Mass and Angular Momentum: Rotational Mixing in Early-Type Stars. *S. R. Sreenivasan and W. J. F. Wilson.* **292**, 506, 53-C5 (1985)
- WINGET, D. E. A Measurement of Secular Evolution in the Pre-White Dwarf Star PG 1159-035. *D. E. Winget, S. O. Kepler, E. L. Robinson, R. E. Nather, and Darragh O'Donoghue.* **292**, 606, 54-C13 (1985)
- WOLF, GRACE. Active Star Formation in NGC 2264. *P. R. Schwartz, Harley A. Thronson, Jr., Sten F. Odenwald, W. Glaccum, R. F. Loewenstein, and Grace Wolf.* **292**, 231, 48-E5 (1985)
- WOLFF, SIDNEY C. The Determination of the Helium Abundance in Main-Sequence B Stars. *Sidney C. Wolff and J. N. Heasley.* **292**, 589, 54-B10 (1985)
- WOOD, W. P. The Action of Inexorable Meridional Circulation on a Stellar Magnetic Field. *M. J. Roberts and W. P. Wood.* **292**, 578, 54-A10 (1985)
- WOODS, T. N. The Absolute Flux of Six Hot Stars in the Ultraviolet (912-1600 Å). *T. N. Woods, P. D. Feldman, and G. H. Bruner.* **292**, 676, 55-B9 (1985)
- WOODY, D. P. High-Resolution CO Observations of NGC 7027. *C. R. Masson, K. W. Cheng, G. L. Berge, M. J. Claussen, G. M. Heiligman, R. B. Leighton, K. Y. Lo, A. T. Moffet, T. G. Phillips, A. I. Sargent, S. L. Scott, and D. P. Woody.* **292**, 464, 52-G3 (1985)
- YAHIL, A. Two-Phase Accretion Model for Emission-Line Regions in Quasars and Active Galactic Nuclei. *A. Wandel, M. Milgrom, and A. Yahil.* **292**, 206, 48-C8 (1985)
- ZEILINGER, W. W. Warped Dust Lanes in Elliptical Galaxies: Transient or Stationary Phenomena? *F. Bertola, G. Galletta, and W. W. Zeilinger.* **292**, L51, 57-B3 (1985)
- ZIURYS, L. M. Detection of Interstellar Rotationally Excited CH. *L. M. Ziurys and B. E. Turner.* **292**, L25, 50-B14 (1985)